

What is claimed is:

1. A method of reproducibly generating dendritic cells, comprising the steps of:
- 5 (a) loading blood mononuclear cells into a cell culture container containing microcarrier beads therein;
- (b) incubating for a predetermined time period tissue culture comprising the cells loaded in the container in step (a); and
- 10 (c) separating nonadherent cells and cells adhered to the beads.
2. A method of reproducibly generating dendritic cells, comprising the steps of:
- 15 (a) loading microcarrier beads into a cell culture container;
- (b) loading blood mononuclear cells into the container;
- (c) incubating for a predetermined time period tissue culture comprising the mononuclear cells loaded in the
- 20 container in step (b); and
- (d) separating nonadherent cells and cells adhered to the beads.
3. The method of claim 1, wherein the container comprises
- 25 a gas permeable cell culture bag.
4. The method of claim 1, wherein the container is a closed vessel.
- 30 5. The method of claim 1, wherein the tissue culture incubated for the predetermined time period in step (b) is washed to remove nonadherent cells.
6. The method of claim 1, wherein after step (b) the beads
- 35 are allowed to settle and supernatant is expressed off.

00726883.113000

7. The method of claim 1 further comprising:

(d) preparing dendritic cell culture medium; and

(e) transferring the dendritic cell culture medium prepared in step (d) to the container after step (c).

5

8. The method of claim 7 further comprising:

(f) incubating the container for a second predetermined time period after step (e);

(g) agitating contents of the container incubated in step (f); and

(h) harvesting cell culture suspension by expression into transfer bags using a sterile connecting device after the beads agitated in step (g) are allowed to settle.

9. The method of claim 1, wherein after step (c) samples are removed from the container for quality control.

10. The method of claim 9, wherein the quality control includes at least one of viability staining, microbial analysis, cell enumeration, microscopic examination of dendritic cell morphology, and immunophenotyping to determine a purity of the dendritic cell preparation.

11. The method of claim 1, wherein the blood mononuclear cells are obtained by apheresis.

12. The method of claim 1, wherein a ratio of a combined surface area of the microcarrier beads and the container to a volume of the container volume is a value that allows the container to hold enough media for the predetermined time period of incubation in step (b).

09726883-113000